

SQUIRREL: A COMMUNITY-DIRECTED APPROACH TO INVESTING

By

Copyright 2011

Brian Matthew Smith

Submitted to the graduate degree program in the Department of Design and the Graduate Faculty of the University of Kansas in partial fulfillment of the requirements for the degree of Master of Arts.

Chairperson Michael D. Eckersley

Richard Branham

Frank Jurden

Date Defended: December 5, 2011

The Thesis Committee for Brian Matthew Smith certifies that this is the approved version of the
following thesis:

SQUIRREL: A COMMUNITY-DIRECTED APPROACH TO INVESTING

Chairperson Michael D. Eckersley

Date approved: December 5, 2011

Abstract

This thesis project explores the self-directed mutual fund investing space outside of personal retirement planning. The objective is to popularize mutual fund investing by removing the need for traditional financial adviser assistance and lowering the financial and behavioral barriers to fund ownership for underserved consumer segments.

TABLE OF CONTENTS

1. Introduction

- 1.1 Background
- 1.2 Goal of the Thesis
- 1.3 Relevancy of the Topic

2. Research Framework

- 2.1 Research Question
- 2.2 Primary Research
- 2.3 Secondary Research
- 2.4 Competitor Analysis
- 2.5 Design Methodology

3. Analyzing the Research and Developing the Solution

- 3.1 Participatory Design Sessions
- 3.2 Design Concept

4. Conclusion

5. References

6. Bibliography

7. Appendix

1. Introduction

1.1 Background

While not without their risks, mutual funds, as investment vehicles, generally provide much better returns than CDs or savings accounts. Because of their financial performance, they have proven to be a successful financial product for long-term investments, most notably retirement investments. Today roughly 90 million Americans own mutual funds, and their collective invested assets total around 11.5 trillion. Of these 90 million investors, only 5.5 percent self-direct or buy shares in mutual funds directly. The other 85 percent of these investors choose to use intermediaries, such as employee-sponsored retirement plans or financial advisers, to assist with financial planning. Outside of employee-sponsored retirement plans, among all investor segments and especially among Generation Y, negative sentiment about financial advisers and minimum contributions create barriers to entry to mutual funds. While fund companies have had great success over the last forty years, the industry peaked in 2008 and growth has slowed.

1.2 Goal of the Thesis

The goal of this thesis is to explore disruption through disintermediation in the mutual fund market. Financial advisers and minimum contribution rates are barriers to a large and growing segment of potential investors. I believe that an open, transparent, and community-directed investor site that serves both novice and experienced investors alike would be a compelling alternative to traditional financial advisers. Further, groups of likeminded investors could pool their money, much like Chit funds in India, to create portfolios and purchase products that they would not be able to invest in individually because of high initial contributions. The use of game mechanics, behavioral economics techniques, and point-of-sale partnerships would encourage investing as a habit. Such a site would not only grow mutual funds as a financial product, but could benefit the underinvested or non-invested by introducing them to long-term investing for life goals, such as a buying a house or car or saving for a wedding or vacation. In addition, the collective intelligence of a large community of investors combined with performance feedback would provide insight and transparency into the mutual marketplace.

1.3 Relevancy

A mutual fund is a managed investment that pools money from many investors to buy stocks, bonds, and other investments. Unlike purchasing a share of stock, a mutual fund share provides the advantages of diversification and professional management and generally provides better returns than a CD or savings account. A mutual fund investment is an attractive financial product when saving for a long-term goal, such as retirement, a house, or a child's education.

In 2010, nearly 45 percent of U.S. households owned shares of mutual funds, representing an estimated 52.3 million households, 90 million investors, and 11.5 trillion in assets. Of these 90 million investors, only 32 percent owned mutual funds outside of employee-sponsored retirement plans. Of this 32 percent, only 19 percent self-directed their investments while 81 percent relied on financial advisors to purchase their mutual funds. The industry saw strong growth in the 1980s and 1990s when companies widely adopted the employee-sponsored retirement plan, the 401(k); however, the industry peaked in 2008 and growth has slowed. (2011 Investment Company Fact Book)

One potential boon to the industry lies in the yet to be invested wealth of Generation X and Generation Y. Their combined net worth will triple by 2018 to \$28 trillion. Moreover, "\$18 trillion in generational wealth transfer from Gen Y's baby boomer parents is projected to occur from 2017 to 2052" (Johnston, p. 1). Both Generation X and Y have strong interests in self-directed investing. Over half of Generation X consider themselves "self-directed" and only 18% work with financial advisers, and analysts feel that a greater number of Generation Y will want to self-direct. However, because at this time in their lives, Generation Y has little money to invest, fund companies and financial advisers do not have much interest in them because it costs too much to manage small balances (Johnston, p. 2).

To increase their reach with investors, mutual funds have increasingly moved to third-party distribution channels, namely independent and large broker-dealers, to sell their products; however, these channel partners have brought some downsides, namely increased costs of doing business because of fees and

commissions as well as a loss of emotional connection with their clients. Because the customer relationship is mediated through the financial adviser, the customer is more likely to remain with the adviser and not the fund when the advisor changes brokerages or suggests other fund products. In addition, with the intermediary relationship, the brokers own the customer accounts and the data.

The opportunity lies in empowering people to self-direct invest. To reduce risk, knowledge of financial investing is crucial. A healthy community supported by technology and a good experience would not only create a viable new channel for fund companies but would also create gains for social good.

2. Research Framework

2.1 Research Question

How can a community-directed investment site positively disrupt the mutual fund industry for the betterment of the investor?

2.2 Primary Research

Participatory design sessions with Generation Y participants were conducted with the objective of uncovering current investment sentiment and habits. The problem and proposed Squirrel solution was described. The groups then participated in design charrettes to both critique the proposed solution and to draft new solutions. Participatory design methods, a Generation Y persona, and IIT Institute of Design's Brains, Behavior & Design tools were used.

2.3 Secondary Research

Financial industry and behavioral economics research was gathered.

2.4 Competitor Analysis

I reviewed over 90 companies and start-ups while exploring the financial service space, including investment networks, personal finance management tools, micro-loans and social borrowing, rewards

platforms, family finance tools, games, and mobile applications and services. I then mapped these companies around a central cluster of community to determine design and experience opportunities within the space.

2.5 Design Methodology

User-centered and activity-centered designed methodologies will be employed, including personas, user scenarios, and activity maps.

3. Analyzing the Research and Developing the Solution

3.1 Participatory Design Sessions

The Generation Y participants in the participatory design sessions generally found quick affinity with the “Squirrel” concept as well as the behavioral economics techniques. Working in small groups, the participants were given the challenge to encourage the persona Claire to contribute \$5.00 to her investment account while making a grocery store purchase. (See Appendix, p. 61-64.)

3.2 Design concept

The design concept is a multi-sided economic platform, called Squirrel, that creates value by facilitating a more direct relationship between mass market and emerging investors and mutual fund companies by removing the need for a financial advisor or brokerage. Competitive advantages of the platform would be the unique offering of community, financial tools, information, and the ability to perform mutual fund transactions. Game mechanics, behavioral economics techniques, and point-of-sale partnerships with mobile wallet providers and retailers encourages investing as a habit and ensures long-term investing success for the emerging investor segment.

Because of Securities and Exchange (SEC) rules, Squirrel cannot offer financial advice or suggest investment products like a registered financial advisor. Instead, Squirrel, to create community-advice and direction, would aggregate investment information from financial sites, provide financial analytics, invite

guest advisors to create content and discussion, and provide the ability for discussion groups to form organically.

4. Conclusion

Because many emerging Generation Y investors “live from paycheck to paycheck” and have trouble maintaining significant savings assets, behavioral economics and social techniques are crucial to the viability of the Squirrel concept. To help these investors build assets, in behavioral economics terms, a Squirrel point-of-sale behavioral “nudge” is used to attach a small investment contribution “loss” to a larger retail purchase “loss.” This frequent (and small) investment behavior is more emotionally appealing than making a significantly larger and less frequent investment contribution, which to many emerging investors “feels like a bill.” Further, these frequent small investments combined with encouragement from Squirrel and the Squirrel community encourages investment as a life-long habit.

5. References

2011 Investment Company Fact Book. (n.d.). *Investment Company Institute*. Retrieved October 09, 2011, from <http://www.icifactbook.org>

Johnston, D. B. (2011, May 5). How funds can increase Gen Y sales wins. *Ignites*. Retrieved October 8, 2011 from <http://www.ignites.com/pc/191532/24572>

6. Bibliography

Ariely, D. (2008). *Predictably irrational: the hidden forces that shape our decisions*. New York, NY: Harper.

Arnott, J. (2006). Leadership in design management: Are you using the right tools? *Design Management Review*, 17(4), 56-64, 87.

Chiva, R., & Alegre, J. (2009). Investment in design and firm performance: The mediating role of design management. *Journal of Product Innovation Management*, 26(4), 424-440.

Davison, J. (2009). The new design imperative: To satisfy and delight. *Design Management Review*, 20(1), 16-22, 64-65.

Esslinger, Hartmut. (2009). *A fine line*. San Francisco, CA: John Wiley & Sons.

Fallman, D. (2008). The interaction design research triangle of design practice, design studies, and design exploration. *Design Issues*, 24(3): 4-18.

Flanagan, T. (2008). Scripting a collaborative narrative: An approach for spanning boundaries. *Design Management Review*, 19(3), 80-86, 88.

Gilmore, James H., & B. Joseph Pine II. (2007). *Authenticity*. Boston, MA: Harvard Business School Press.

Hargadon, A. (2005). Leading with vision: The design of new ventures. *Design Management Review*, 16(1), 33-39.

Joziassse, F. (2011). The soul of design leadership. *Design Management Review*, 22(3), 34-42.

Lantos, G. P., Brady, D. L., & McCaskey, P. H. (2009). New product development: An overlooked but critical course. *Journal of Product & Brand Management*, 18(6), 425-436.

- Lemann, Mariana. (2008, January 28). Retirement Industry Overlooking Gen Y's Needs. *Ignites*. Retrieved October 8, 2011 from <http://www.ignites.com/pc/35793/10035>
- Løvlie, L., Downs, C., & Reason, B.. (2008). Bottom-line experiences: Measuring the value of design in service. *Design Management Review*, 19(1), 73-80, 82-83.
- Maeda, J. (2006). *The laws of simplicity*. Cambridge, MA: MIT Press.
- Martin, R. L. (2009). *The design of business: Why design thinking is the next competitive advantage*. Boston, MA: Harvard Business Press.
- Meadows, D. H., & Wright, D. (2008). *Thinking in systems: A primer*. White River Junction, VT: Chelsea Green.
- Meyer, C. & Schwager, A. (2007, February). Understanding customer experience. *Harvard Business Review*, 85(2), 116-126.
- Mozota, B. (2003). *Design management: Using design to build brand value and corporate innovation*. New York, NY: Allworth Press.
- Murray, K. B., & Bellman, S. (2010). Productive play time: The effect of practice on consumer demand for hedonic experiences. *Journal of the Academy of Marketing Science*, 39(3),376-391.
- Osterwalder, A., Pigneur, Y., & Clark, T. (2010). *Business model generation: a handbook for visionaries, game changers, and challengers*. Hoboken, NJ: Wiley.
- Owen, C. (2001). Structured planning in design: Information-age tools for product development. *Design Issues*, 17(1), 27-43.
- Petrie, A.. (2008, July). Developing products with a holistic process. *Design Management Review*, 19(3), 68-73, 90.
- Pfeffer, J. & Sutton, R. (2006). Treat your organization as a prototype: The essence of evidence-based management. *Design Management Review*, 17(3), 10-14, 80-81.
- Pine, B. J., & Gilmore, J. H. (1999). *The experience economy: Work is theatre & every business a stage*. Boston, MA: Harvard Business School Press.
- Pink, D. H. (2009). *Drive: The surprising truth about what motivates us*. New York, NY: Riverhead Books.

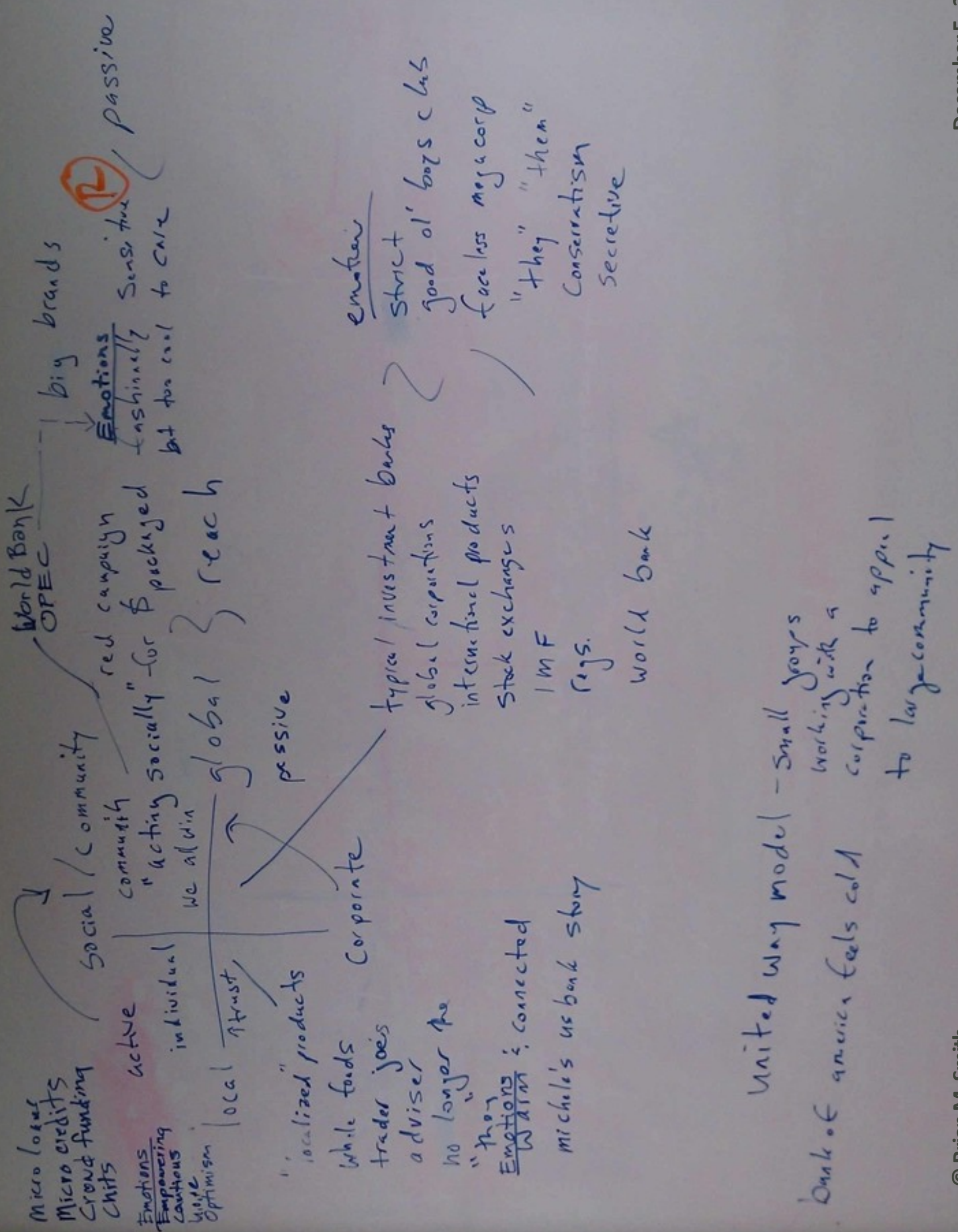
- Richardson, A. (2010). *Innovation X: Why a company's toughest problems are its greatest advantage*. San Francisco, CA: Jossey-Bass.
- Sargut, G. & Gunther, R. (2011, September). Learning to live with complexity. *Harvard Business Review*, 89(9), 68-76.
- Schmitt, B. (2003). *Customer experience management: A revolutionary approach to connecting with your customers*. New York, NY: Wiley.
- Sebastian, R. (2005). The interface between design and management. *Design Issues*, 21(1): 81-93.
- Shirky, C. (2009). *Here comes everybody: The power of organizing without organizations*. Boston, MA: Penguin.
- Shirky, C. (2010). *Cognitive surplus: Creativity and generosity in a connected age*. New York, NY: Penguin Press.
- Sunstein, C. R. (2006). *Infotopia*. New York, NY: Oxford University Press.
- Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: improving decisions about health, wealth, and happiness*. New Haven: Yale University Press.
- Thurston-Chartraw, M. (2006). Disruptive cycles, adaptive strategies, and principles of leadership: Tantalizing connections. *Design Management Review*, 17(4), 39-47,89.
- Tushman, M., Smith, W., & Binns, A. (2011, June). The ambidextrous CEO. *Harvard Business Review*, 89(6), 74-80, 136.
- Verganti, R. (2009). *Design-driven innovation: Changing the rules of competition by radically innovating what things mean*. Boston, MA: Harvard Business Press.
- Vossoughi, S.. (2007). The Best Strategy Is the Right Strategy. *Design Management Review*, 18(4), 73-80,101.

7. Appendix

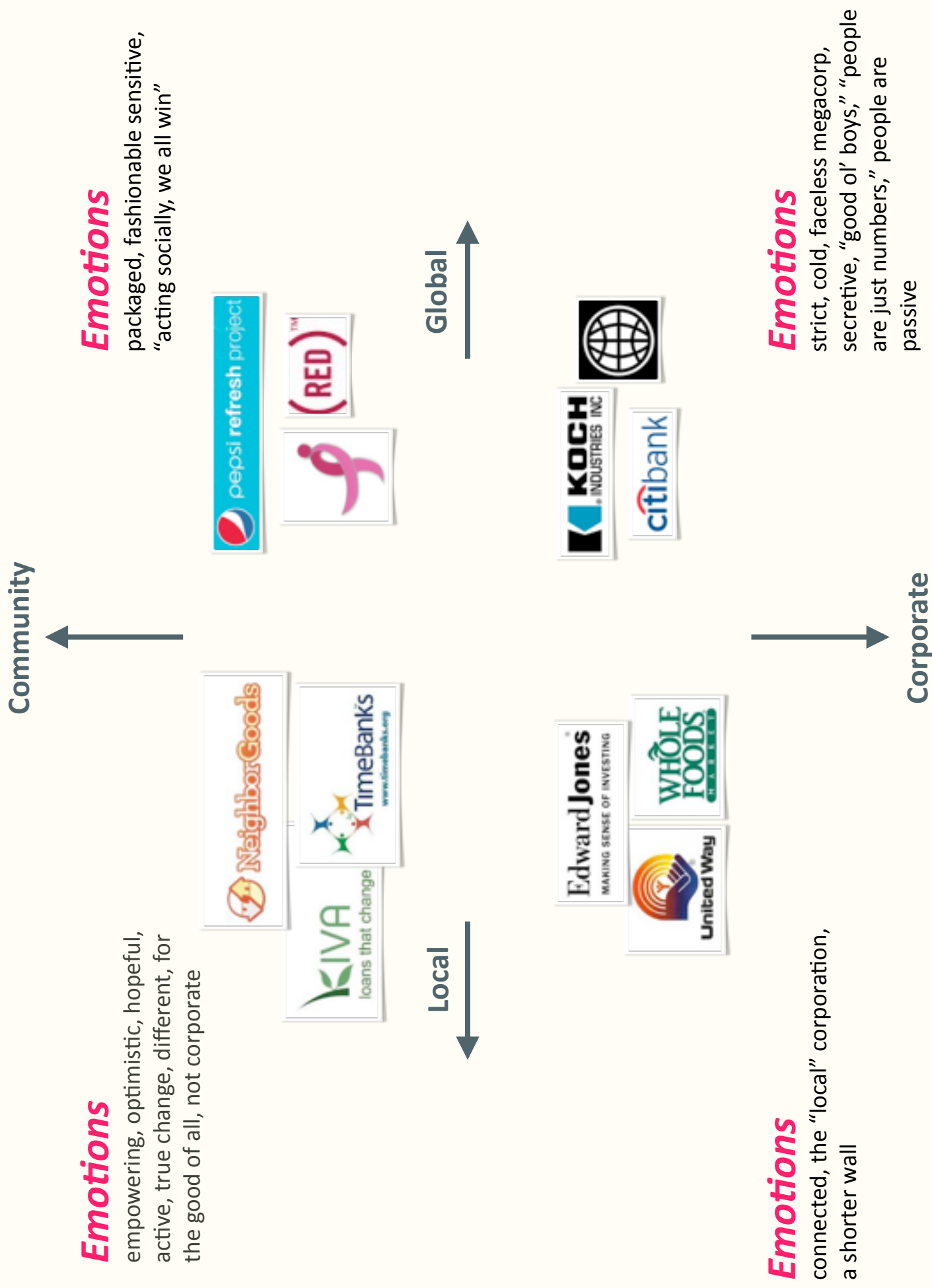
Squirrel: A Community-Directed Approach to Investing

Design Management Thesis Project

conceptual beginnings

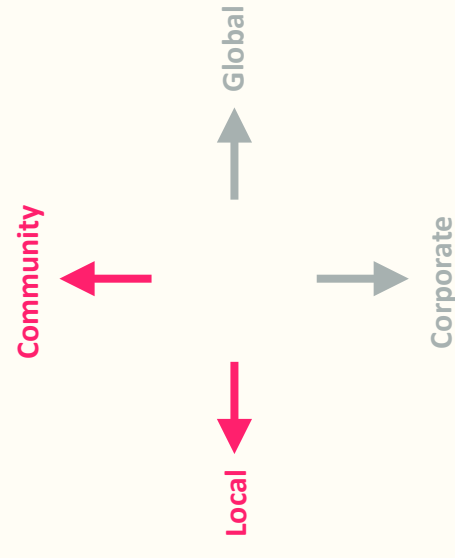


Corporations and Community



Conceptual Beginning

What if we removed the barriers to entry—financial, attitudinal, and behavioral—to mutual fund investing? Could we serve the long-tail, the underserved segments, for the betterment of all?



the pitch deck

Consumer Problem

Investing is often a confusing, anxiety-inducing activity for many people.

Financial advisers are typically not interested in serving the large but less affluent segments.

No easy way exists for people to habitually invest in mutual funds with confidence.

Consumer Solution

A friendly place where underserved investors can:

LEARN →

Learn about long-term investing, analyze current investments, and share and compare personal investing habits and portfolios.

CONNECT →

Connect with like investors, build community, group portfolios, and learn from others.

INVEST

Invest as individuals and groups and build together. Social and behavioral economics techniques create long-term investing habits.

Segmentation

US households with investments and level of self-directedness

	Soloists	Validators	Delegators
Affluent > 1M	Affluent Soloists 1%	Affluent Validators 2%	Affluent Delegators 1%
Mass-Affluent 100K – 1M	Mass-Affluent Soloists 8%	Mass-Affluent Validators 19%	Mass-Affluent Delegators 12%
Mainstream < 100K	Mainstream Soloists 9%	Mainstream Validators 30%	Mainstream Delegators 17%

Source: Forrester's Consumer Technographics

Segmentation

64M

U.S. workers **not** invested in a
mutual fund

42% of U.S. workers

10M

self-directed mutual fund
investors

and growing

The Emerging Segment

Validation for the Emerging segment means social proof and not traditional advice.

	Soloists	Validators	Delegators
Affluent > 1M	Affluent Soloists 1%	Affluent Validators 2%	Affluent Delegators 1%
Mass-Affluent 100K-1M	Mass-Affluent Soloists 8%	Mass-Affluent Validators 19%	Mass-Affluent Delegators 12%
Mainstream < 100K	Mainstream Soloists 9%	Mainstream Validators 30%	Mainstream Delegators 17%
Emerging < 5K	42% of U.S. workers		

Segmentation Rationale

Squirrel is positioned to serve the Mainstream and Emerging segments, which are underserved or ignored by financial advisors, brokers, and funds.

- Little channel friction. Partners have little interest in this “low-value” segment.
- Capture some portion of the 25% of investable assets held by Mainstream investors and the untapped dollars emerging investors represent.
- There is a precedent in banking. Bank of America’s Keep the Change program generated \$2.4B in new savings assets.
- Validation means social proof and not traditional advice for Emerging segment.
- Creating a dead simple way to painlessly contribute to an investment would appeal to all segments.
- Because the Mass-Affluent Validator segment represents nearly 50% of investable assets, they are an attractive but crowded target and one that could potentially introduce channel conflict. This segment is not a target.

Mainstream and Emerging Segments

Generation X

Generation Y

Women

Mom as family investor

Self-directed investors

Generation X and Y

Generation X and Y's combined net worth will triple by 2018 to **\$28 trillion.**

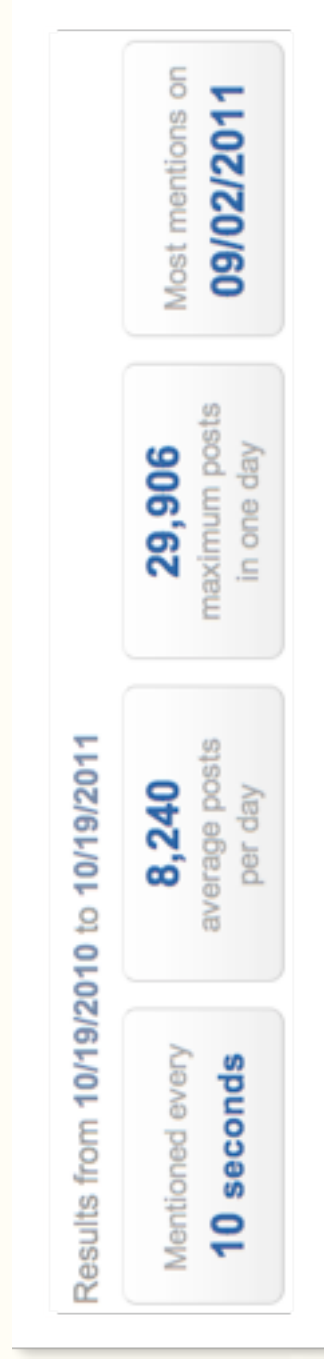
\$18 trillion in generational wealth transfer from Gen Y's baby boomer parents is projected to occur from 2017 to 2052.

Over half of Generation X consider themselves “**self-directed.**”

Researchers believe that Generation Y will rely on **social outlets** for investing advice.

Web Mentions

There were 3+ million posts of the phrase “direct investing” on the web from October 2010–October 2011.



Gender

Most were made by men.



Some Simple Math

Mainstream Segment

\$2.8T

Approximate Mainstream Mutual
Fund Assets

$$\text{\$2.8T} \times 0.01 = \text{\$28B}$$

$$\text{\$28B} \times 15 \text{ basis points} = \text{\$42M}$$

Some Simple Math

Emerging Segment

$$64M \times 0.01 = 640,000$$

U.S. workers **not**
invested in a mutual fund

$$640,000 \times 2,500 = \$1.6B$$

$$\$1.6B \times 15 \text{ basis points} = \$2.4M$$

How much of the long tail can we capture?

Some Simple Community Math

$$10.3M \times 0.01 = 100,000$$

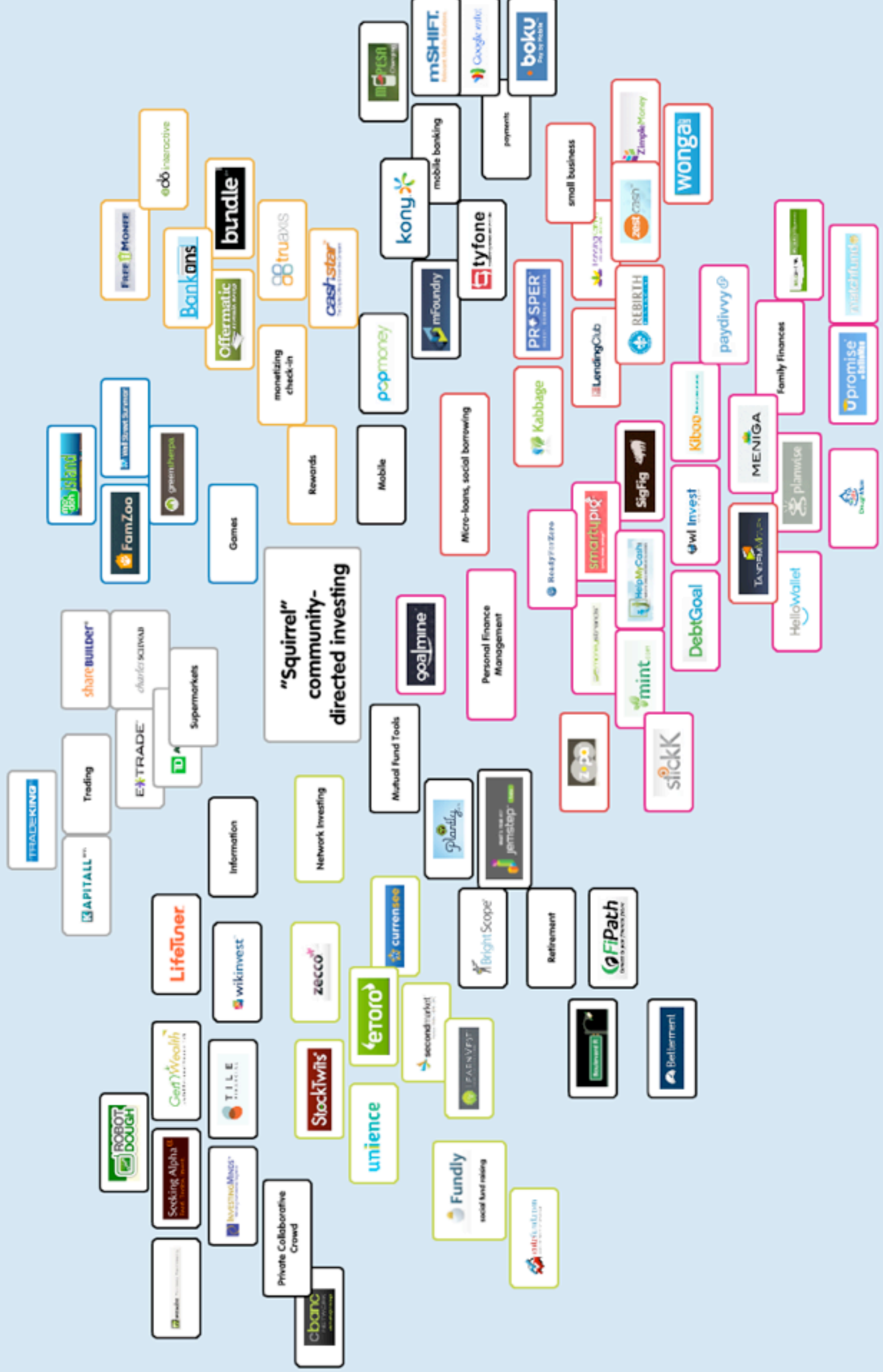
U.S. Gen X and Gen Y
households that invest in funds

$$100,000 + 640,000 = 740K$$

Gen X and Gen Y
households emerging

popplet: Community + Investing

home view all zoom [slider] [gear icon]



Competitors

THE TARGET QUADRANT

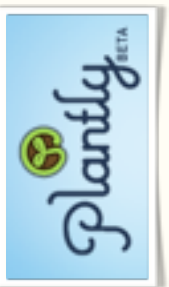
"Squirrel"

Community



No Transactions

Transactions



Individual

Competitive Advantages

Unique Offering

The only place that serves investors with community, rich financial tools, and mutual fund transactions.

Community

A community-based experience that engages the full spectrum of investors, including the long tail.

Behavior

Game mechanics, behavioral economics techniques, and point-of-sale partnerships encourage investing as a habit and becomes the “hook” for the site.

Crowd Mechanics

The collective intelligence of the crowd empowers investors. Crowdsourced moderation keeps the crazies out.

Data

Data in aggregate from the site combined with external data creates new financial analytics.

Design

A friendly, design-forward experience with no smell of big business. Squirrel as a brand name could be karmically just right.

Scenarios: Experience

A potentially new Gen Y investor clicks on our Facebook ad and discovers Squirrel for the first time. She decides to join and completes a profile. Rewards are given.

With the help of our profiling and matching algorithm, a nascent group forms around socially responsible investing. Product and portfolio ideas are shared. More experienced investors and contextual help assists the less experienced. A sense of community begins to emerge within the group. Rewards are given. A reputation system assesses experience.

An established group decides to squirrel resources and invest together. The initial investment is divvied. The group allocates 1% of their returns to a charity. Rewards are given.

A moderator uncovers a user violating the site's code of conduct. The site team cancels his membership and blocks him from further using the site.

An investor's portfolio drops because of market volatility.

User Scenarios: Extending the Experience

A Gen X investor makes his morning Starbucks visit. Our phone app reminds him that he hasn't met his investment goal for the week. After deliberating, he uses the transaction to contribute to his investment account.

A cash rewards card, similar to SmartyPig, allows a Gen X investor to squirrel the cash rewards.

A purchase at Gamestop allows a Gen Y investor to squirrel the change to his investment account. We piggyback an established habit. He receives a badge, which increases his motivation and stickiness with the site.

A women's group physically meets for the first time at a Whole Foods Market. FourSquare or other check-in service helps them identify each other and generates rewards for individuals and group. Offline tools allow them to build together.

At the point of sale, "You just saved \$20.00 by using your Google Offer. Would you like to invest the money you just saved?"

Promotion Plan

Events

tell the story

Finovate

NICSA

Web 2.0

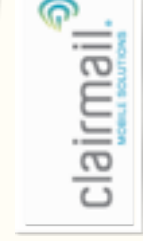
SXSW

TechCrunch

Partners

mobile, tools, and marketing

Mobile Payment



Social

leverage the social web



Financial Goal Tools



Digital Marketing



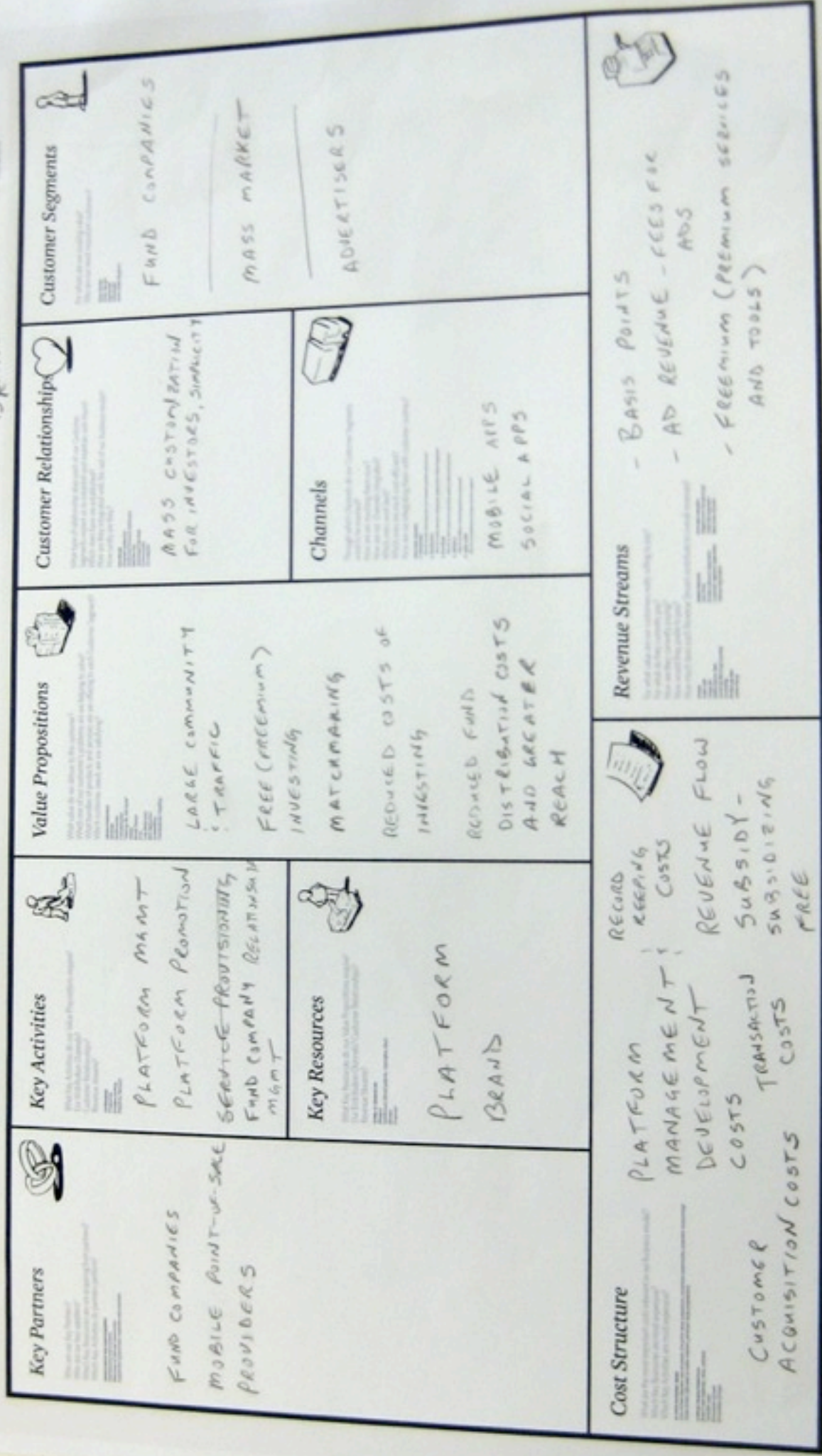
business model

The Business Model Canvas

Designed for:

Designed by: **Brian**

10/14/11



www.businessmodelgeneration.com

Source: http://www.businessmodelgeneration.com/downloads/business_model_canvas_poster.pdf

Squirrel, a multi-sided platform

In economics terms, a multi-sided market brings together two or more groups of interdependent customers. The market or platform creates value by facilitating interactions between the customers. The platform increases in value by attracting more customers (the network effect) and reducing costs through platform efficiencies.

To facilitate the relationship between the mass market and fund companies, we subsidize the novice investor segment with revenue from ads and basis points.

Key Partners

Fund companies would have a less expensive distribution channel, fewer basis points to pay, and a greater reach into market segments, including younger investors, which would establish an earlier brand relationship. Fund companies would provide the products and potentially purchase ads.

Mobile point-of-sale providers would increase their number of transactions and customers.

Retail partners would have an additional service to offer customers as well as increased positive brand sentiment.

Key Activities

- Platform promotion with mass market
- Platform management
- Integration with partners and vendors
- Financial products management
- Product governance
- Continual competitive and social analysis

Key Resources

- Platform
- Brand
- Investors, community, and network
- Banks
- Retail Partners

Cost Structure

- Platform management and development
- Possible subsidy to attract mass market segment (free and freemium)
- Customer acquisition and promotion costs
- Transaction and banking costs
- Investor record keeping costs (sub-accounting)
- Legal and business costs
- Investment model development costs (Morningstar)

Value Proposition

- Large community
- High traffic interesting to advertisers
- Simple goal tracking and attainment
- Easy way to invest
- Open market of mutual fund products
- Matchmaking between investor segment with fund company products
- Reduced costs of investing by removing fees and commissions
- Reduced fund distribution costs
- Greater market reach for funds and earlier adoption of fund/brand products.

Customer Relationships

- Mass customization for investors (investment products + community)
- Simplicity for investors
- Always on and convenience
- Shift the burden from investors to the system

Customer Segments

Mass Market (Mainstream and Emerging)

- Novice
- Generation Y
- Generation X
- Mom as family investor
- Self-directed investors
- The investment club

Fund companies and other financial products

Advertisers

Channels

Web

Mobile apps

Social apps

Retail

Bank integration

Revenue Streams

- Basis points charged to fund companies
- Fees charged to advertisers
- In freemium model, charge for premium services and tools. Early adopters finance tool development and pay for the privilege to be early adopters.
- Resell data in aggregate for research.

behavioral economics

Behavioral Economics and Social Behavior

In many of our actions, especially financial, we are not the rational beings we claim to be. Social and emotional factors often influence our decisions.

Combining Losses

We are more accepting of a small loss when it is combined or attached to a larger loss. For example, the \$1.00 donation requests at the grocery or pet store check-out can be very successful.

Squirrel can

- Prompt or nudge investors at the point-of-sale. \$100.00 for groceries + \$5.00 for investing.

The Default Option

People tend to believe that the default option is the right choice, so make the default option the desired outcome. Example, Germany's Opt-In Organ Donor program (12%) compared to Austria's Opt-Out (99%).

Squirrel can

- Make the option to automatically combine a \$1.00 investment with every retail purchase the default.

Hedonic Framing

We tend to feel that two separate gains have more value than one larger gain of equal value. We also tend to feel more emotional pain over two losses than one large loss of equal value.

Squirrel can

- Itemize contributions and positive returns and when possible combine losses.

Intertemporal Choice

The present is more influential than the future. We tend to feel more vividly the immediate result of a decision because the future is difficult to envision. For example, feeling the affect of having less money now versus a possible future gain.

Squirrel can

- Help make the future more real by showing progress towards a named goal.
- Suggest money saving activities that lessen the emotional impact of “losing” money in hand to and investment.

The Pain of Loss

Financial loss is more emotionally painful than financial gain is enjoyable.

Squirrel can

- Help manage investor expectations of the vagaries of the market.

Surprise and Expectation

People enjoy a good surprise, which can generate much more emotional excitement than a predictable event; however, the potency of surprise declines when it becomes expected.

Squirrel can

- Use surprise to create appeal, excitement, and pleasure.

Social Proof

People believe the actions of others reflect the correct behavior. For example, many people rely on information from others, such as ratings and reviews, before making a purchase.

Squirrel can

- Provide social proof through broadcast nudges and community analytics.
- Sensibly use the bandwagon effect.

research methods

primary research



Combine losses.

Try this strategy if there are many small losses associated with the proposed behavior and...

- You're dealing with more future losses than future gains.
- You're dealing with more present losses than present gains.

Learn more
Read about Hedonic Framing.

Why is this important?

- Quantity matters. Two smaller losses occurring separately hurt more than two larger losses bundled together with a larger loss will be less noticeable.

Keep in mind...
This effect can be amplified if you can also move the combined losses into the future.



Shift present losses into the future.

Ask yourself:

- Which present losses could be split apart so that pieces of them might be moved into the future?
- Which present losses could be moved directly into the future?

Keep in mind...

- Consider introducing small present gains to entice users or train them for their participation.
- Consider introducing present feedback about achieving future gains.

Shift future gains into the present.

Ask yourself:

- Which future gains could be moved directly into the present?
- Which future gains could be split apart so that pieces of them might be moved into the present?

Keep in mind...

- Consider introducing small present gains to entice users or train them for their participation.
- Consider introducing present feedback about achieving future gains.

Shift up big gains to smaller gains.

Ask yourself:

- Which present gains could be split apart so that pieces of them might be moved into the future?

Hedonic Framing

Tendency to view two gains occurring separately as having more value than one large gain of equal value. However, two losses occurring separately are more painful than one large loss. Small gains/losses attached to larger gains/losses are less noticeable.

Loss Aversion

Tendency to avoid losses, and to view the cost of giving up an object or entity as greater than cost of acquiring it.

Intertemporal Choice

Tendency to focus on the immediate result of a decision over a future result. The immediate situation is vivid and can feel visceral, whereas a future situation is hard to envision. There is often a disconnect between current (known) self and future (unknown) self.

Hyperbolic Discounting

Tendency to value present gains over future gains, even if the future gains are larger. The tendency diminishes the further in the future the options are.



December 5, 2011

© Brian M. Smith



Shift future gains into the present.

Why is this opportunity?
Current investments require a gain in the present to meet needs and have many interconnected risks.

Learn more
Build a solid foundation for the future by investing in the present.

Help Claire make investing a daily habit.



Claire Appleton

Claire, 24, is fully employed but worries about her school loan debt. She dreams of buying a small cozy house before she turns 30. She knows she needs to seriously save, but the realities of life keep getting in the way.

Claire is at the grocery store. With her transaction, she is prompted to invest \$5.00 towards her investment account. How can we encourage her to do it?

Help Claire make investing a daily habit.



Claire Appleton

Claire, 24, is fully employed but worries about her school loan debt. She dreams of buying a small cozy house before she turns 30. She knows she needs to seriously save, but the realities of life keep getting in the way.





Help Claire make investing a daily habit.



Claire Appleton

Claire, 24, is fully employed but worries about her school loan debt. She dreams of buying a small cozy house before she turns 30. She knows she needs to seriously save, but the realities of life keep getting in the way.

Claire is at the grocery store. With her transaction, she is prompted to invest \$5.00 towards her investment account. Should she do it?

VIZIO





Present gains
What do people think the present gains of [proposed behavior] are?

- Easier that you can sell...
- you're just moving to...
- you're in a better...
- that's...
- you're not...
- that's...

Present losses
What do people think the present losses of [proposed behavior] are?

- Higher budget...
- Not being able to go on...
- Social life
- Short term loss...

Future gains
What do people think the future gains of [proposed behavior] are?

- Ability to accelerate future level of...
- Achieve goals at faster rate
- Less anxiety, retire faster
- More robust knowledge
- Diversification possibilities

Future gains
What do people think the future gains of [proposed behavior] are?

- Ability to accelerate future level of...
- Achieve goals at faster rate
- Less anxiety, retire faster
- More robust knowledge
- Diversification possibilities

Present losses
What do people think the present losses of [proposed behavior] are?

- Higher budget...
- Not being able to go on...
- Social life
- Short term loss...

Future losses
What do people think the future losses of [proposed behavior] are?

- Market volatility
- Encouragement (lets to how much if you have) - may lead people to go on a spending spree

Future gains
What do people think the future gains of [proposed behavior] are?

- Opportunity costs
- Future losses could offset gains
- Market unpredictability
- Anxiety

Future losses
What do people think the future losses of [proposed behavior] are?

- Market volatility
- Encouragement (lets to how much if you have) - may lead people to go on a spending spree

Future gains
What do people think the future gains of [proposed behavior] are?

- Opportunity costs
- Future losses could offset gains
- Market unpredictability
- Anxiety

Present Gains

- “You can see where your money is going.”
- “Putting in a little at a time and it’s not set in stone.”
- “Might end up saving more than an initial set amount.”
- “Simple makes me more aware.”
- “More confidence with myself.”
- “You are doing something positive for your life.”

Present Losses

- “A real concern when something comes up and you have to use your investment instead of saving long-term.”
- “Tighter budget in the short-term.”
- “Not being able to go out as much.”
- “Social life.”
- “Make you more emotional on your future if big losses.”
- “A real concern when something comes up and you have to use your investment instead of saving long-term.”
- “Possible that people would not feel like their investment is growing.”

Future Gains

- “Attain goals at a faster rate.”
- “Less anxiety about money.”
- “Market knowledge.”
- “College for my kids.”
- “More options for me financially.”
- “Be able to reach my goals in a simple way.”
- “Future generations will be interested in investing if it is so simple.”
- “No need for “Rich Dad Poor Dad.”
- “Counters Social Security issue and other economic crises.”
- “Little effort.”
- “Easy way to save for the future.”

Future Losses

- “What if the market crashes when I need the money?”
- “If I have a large amount of money, I may want to spend it.”
- “Anxiety about the market.”
- “Future losses could be bigger than what I put in.”

Helping Claire

- “If she is saving for a house, maybe animate how her investment is helping build her house.”
- “Rent vs. own.”
- “Ability for her to track her progress.”
- “Show her that giving up small quantities now could lead to a huge gain.”
- “Optimism.”
- “Know when payday is and reminder her to invest.”
- “Keep her from spending her savings, because I always do.”

Reactions to Concept

- Do not want it to happen automatically, unless prompted. Concern about overdrafts.
- Set a goal and if you don't achieve it, say \$50, an automatic ACH would cover the difference. Again, prompting is important.
- Reach out to others for goal, such as parents. "Claire saved \$45 for her house this month. Do you want to help her goal by giving \$5.00."
- A sense of progress towards goal is essential.
- A monthly contribution feels like "a bill." A dollar here and there feels better. It is an easier decision.
- A percentage is better than an amount. "I'm less likely to spend a percentage."

“Get the youth started.” —Debo’ra Baskin

design

The Mobile Wallet

35%

U.S. adults who own smartphones
Pew Research¹

28%

U.S. adults use location-based services
Pew Research²

¹ <http://pewresearch.org/pubs/2054/smartphone-ownership-demographics-iphone-blackberry-android>

² <http://www.pewinternet.org/Reports/2011/Location.aspx?src=prc-headline>

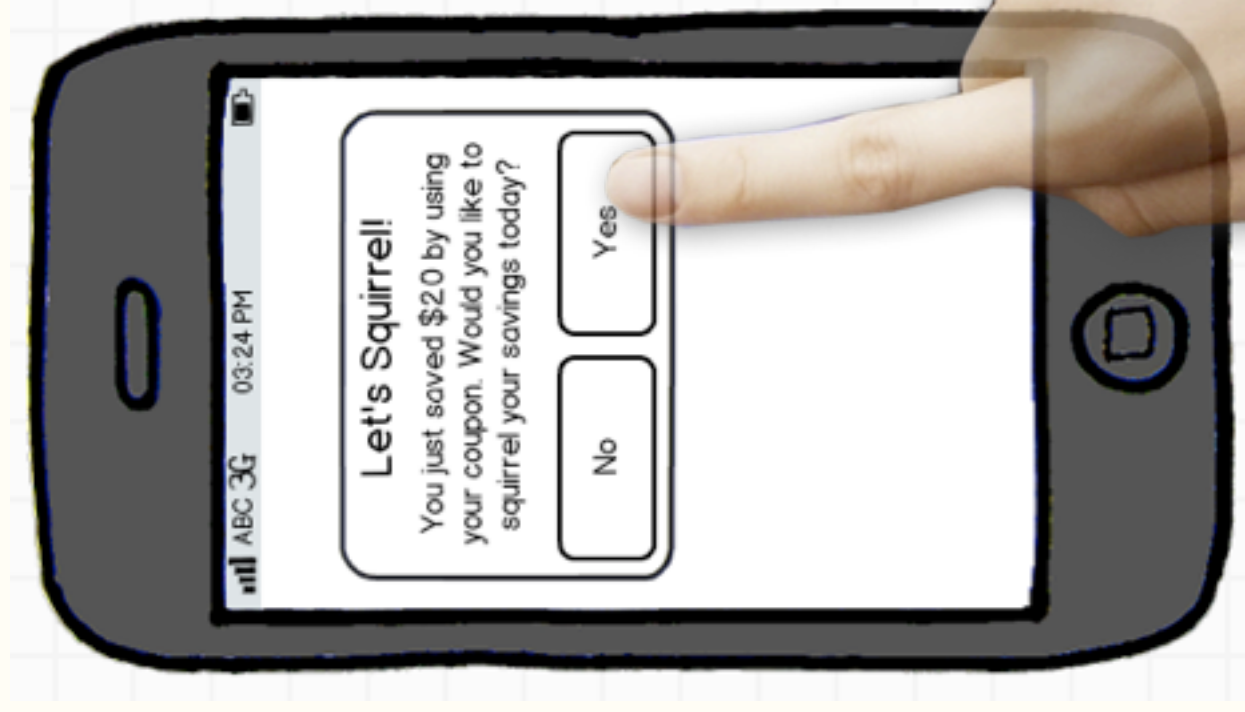
The Mobile Wallet

511%

Increase in Paypal mobile payment for
Thanksgiving 2011
Paypal¹

² <https://www.thepaypalblog.com/2011/11/shoppers-take-to-couch-commerce-on-thanksgiving-day/>

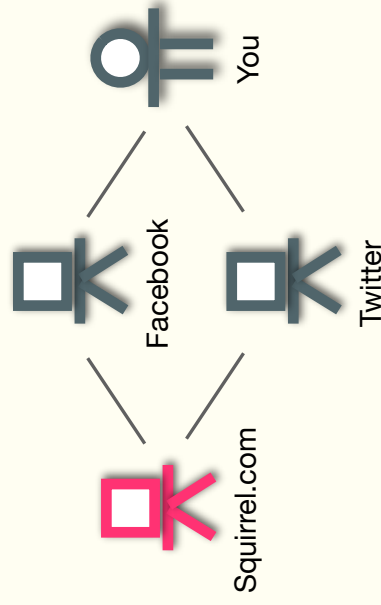
The Nudge



Squirrel Nudges

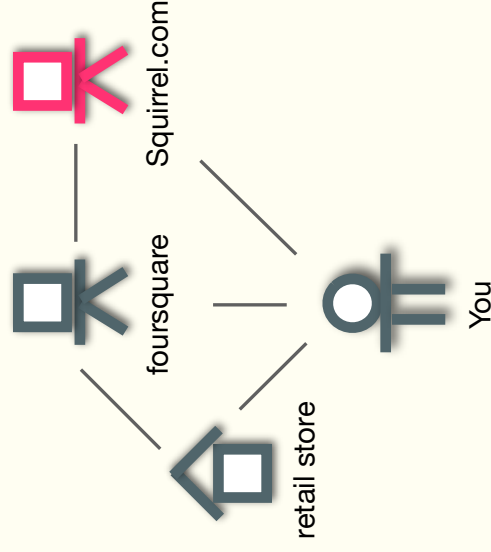
Broadcast Nudge

Follow Squirrel on Twitter or Facebook to receive community updates, investing tidbits, and tweets of encouragement. All of which nudge you to invest.



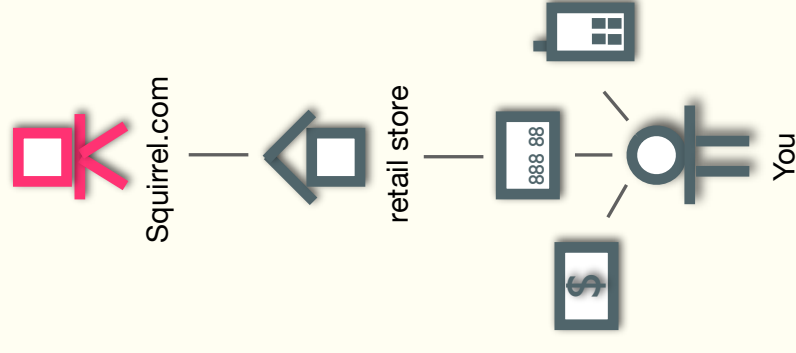
Location Nudge

Use the Squirrel app or allow Squirrel to follow you on foursquare. When you check-in at a retail location, Squirrel will nudge you to invest.



Point-of-Sale Nudge

When you pay at the register, Squirrel retail partners and mobile payment apps make it simple to squirrel funds away.



Design for the first-time investor

Simple flow for new investors with little to no investable assets:

1. Signs up for Squirrel.
2. Identifies goal for default \$500 target for The Squirrel fund.
3. Provides checking account information.
4. Configures phone and nudges.
5. Depending on configuration, every retail visit generates a nudge.
6. Each day the investor receives a single sentence digestible piece of investment information (Investment 101).
7. Small amounts are contributed. Squirrel encourages. Community encourages. Investor learns about investing and becomes committed.
8. When the \$500 goal is attained, the investor “levels-up” and unlocks more funds.

How Squirrel Encourages Investing

\$500

I want to move my money with

- Squirrel (checking account)
- Dwolla
- Paypal
- Google Wallet
- Square
- boku

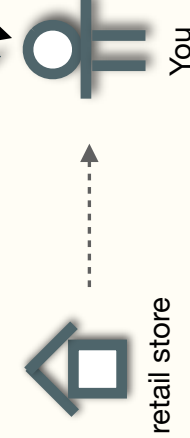
I want to be nudged by

- foursquare
- Gowalla
- shopkick
- Twitter
- Facebook



nudge

Nice check-in at WFs. You are \$10 from your goal. Remember to save those nuts. —Squirrel



Your first goal

Start a goal. Select how you want to move money into your Squirrel investment and then choose your reminders.

Live your day

Simply follow your daily routine: buy coffee, shop for groceries, purchase gas, walk the dog. Bring your phone.

Be nudged

Squirrel's radar detects when you are in the retail mood and prompts you to contribute small, painless amounts to your goal.

nudge

Jason just squirreled \$5 at WFs! You gonna keep pace with him? Sounds like a challenge. —Squirrel

shares

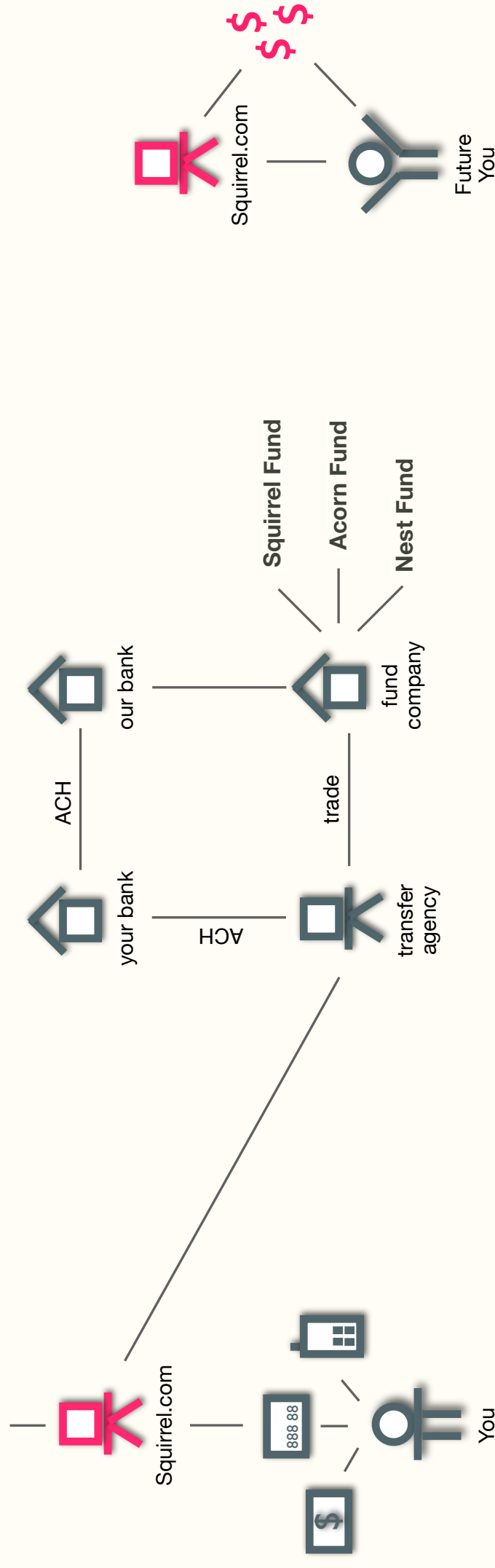
Your Squirrel groups and friends



A day in the life of a Squirrel

Your day's squirrel: \$5.00

Kaye's Coffee	8:08 AM	\$0.54
Petrol Stop	8:24 AM	\$2.00
Burrito Bros.	12:12 PM	\$2.00
Super Xpress	5:21 PM	\$0.46



Squirrel gathers

During the day, Squirrel collects the small contributions to your goal. Once you reach the \$5.00 threshold, Squirrel makes a single bank transaction, which saves ACH fees.

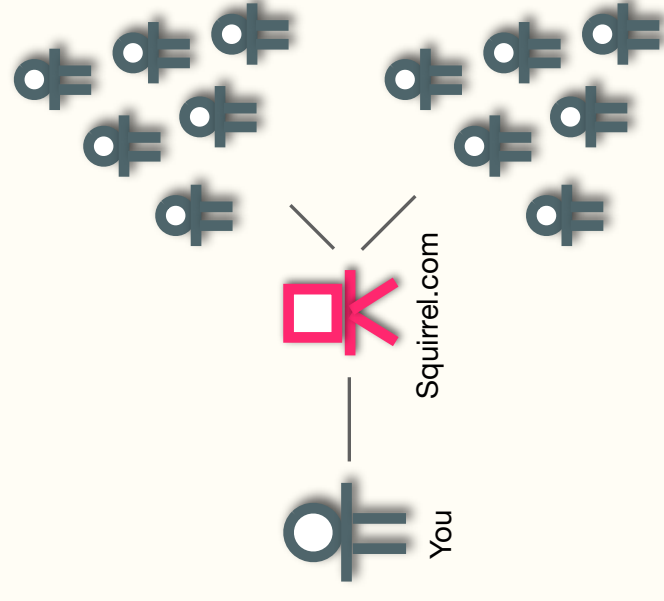
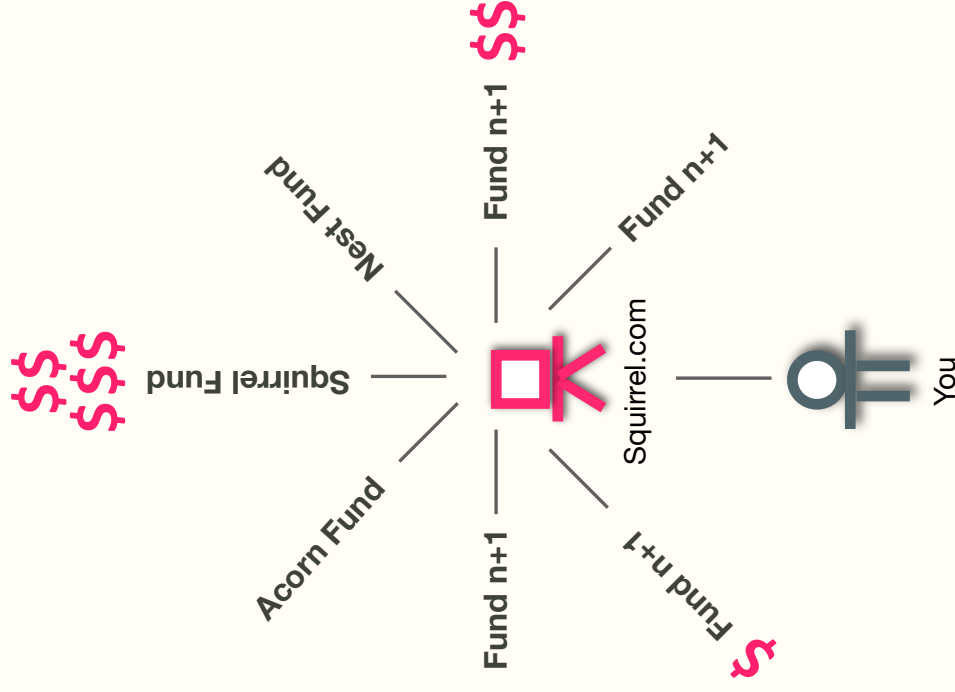
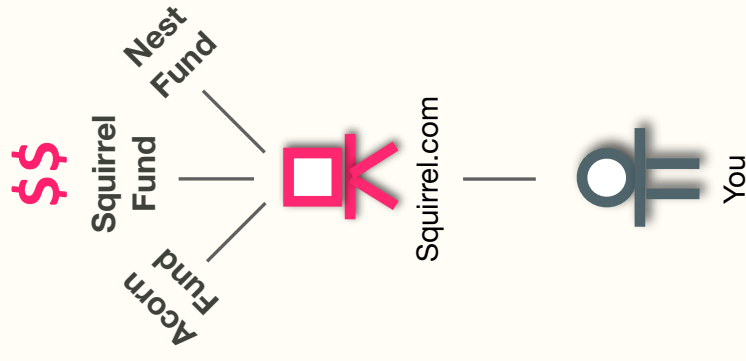
Squirrel invests

Squirrel immediately invests your daily contribution for you using a transfer agency service, which bypasses the middleman.

Woohoo!

With enough stick-to-it-iveness and help from your friends and Squirrel, watch your painless daily investment grow. *Oh, the sweetness of goal attainment.*

Now that you have some experience



Your new habit

You discovered your inner investor and achieved the first goal of \$500 in one of Squirrel's funds. Way to level-up! A larger investing world awaits.

Keep growing

Set a larger goal, such as saving for a house or car. Keep investing in one of Squirrel's funds or select from our marketplace of funds. And learn. Our financial articles and tools help you along the path.

Contribute

Through Squirrel and its community, you achieved. Now give back. Encourage others along their path to goal attainment. Participate in groups. Help make "investing for everybody" a reality.

Design for the experienced investor

The Squirrel fund marketplace is tiered based upon typical fund minimum investment amounts. Investors with assets have access to these tiers. Nudges and investment learning can be configured.

Design for community

Because of Securities and Exchange Commission (SEC) rules, Squirrel cannot offer financial advice or suggest investment products like a typically registered financial advisor. Instead, the Squirrel site will rely on the following to create sound, community-based advice:

- Aggregate investment information from sites such as Wikinvest.
- Provide financial analytics based on Goldman Sachs' open-sourced Modern Portfolio Theory investment model.
- Guest advisers to create content and discussion.
- The ability to join investment discussion groups with forums and direct messaging.